

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

TO: FILE: Aquila Resources Inc-Back Forty Project - MI0059945

FROM: Alvin Lam, DEQ-WRD

DATE: March 3, 2016

SUBJECT: Treatment Technology Based Effluent Limits (TTBELs) Recommendation

An application was submitted on November 11, 2015, and completed on December 8, 2015, requesting a new NPDES permit for Aquila Resources Inc-Back Forty Project. This proposed facility will be constructed to mine ores by an open pit and to process ores for zinc, copper, silver, and gold. The SIC codes for this industry are 1021(copper ores) and 1031(lead and zinc ores). This production process is regulated by 40 CFR 440, Ore Mining and Dressing Point Source Category, Subpart J, Copper, Lead, Zinc, Gold, Silver, and Molybdenum Ore Subcategory.

Effluent Limitations Recommendations

The discharge of mine drainage from outfall 001 shall meet the following Treatment Technology Based Effluent Limitations based on New Source Performance Standards (NSPS) specified in §440.104(a).

<u>Parameters</u>	<u>Maximum Monthly</u>	<u>Maximum Daily</u>
Total Suspended Solids	20 mg/l	30 mg/l
Total Copper	0.15 mg/l	0.3 mg/l
Total Zinc	0.75 mg/l	1.5 mg/l
Total Lead	0.3 mg/l	0.6 mg/l
Total Mercury	0.001 mg/l	0.002 mg/l
Total Cadmium	0.05 mg/l	0.1 mg/l
pH	within the range 6.0 to 9.0	

Comments & Additional Recommendations

The discharge of process wastewater associated with the beneficiation process is prohibited, with specific exceptions, to surface waters. The proposed facility's two mills will

reuse most of the process water except the amount contained in the product and the amount retained in the tailings slurry after dewatering by thickeners.